

Chris A. Sanford, PhD
Idaho State University
Department of Communication Sciences & Disorders
Pocatello, ID 83209-8116
chrissanford@isu.edu / 208.282.2196

EDUCATION

2006 Ph.D. Speech & Hearing Sciences, University of Washington, Seattle WA
1999 M.S. Audiology, Brigham Young University, Provo UT
1997 B.S. Audiology & Psychology, Brigham Young University, Provo UT

ACADEMIC POSITIONS

Interim Associate Dean & Director (July 2020 – present) School of Rehabilitation & Communication Sciences, College of Health, Idaho State University
Department Chair (July 2018 – present) Department of Communication Sciences & Disorders, Idaho State University
Associate Professor (July 2014 – present) Department of Communication Sciences & Disorders, Idaho State University
Assistant Professor (August 2009 – June 2014) Department of Communication Sciences & Disorders, Idaho State University

RESEARCH AND TEACHING INTERESTS

Middle-ear assessment, pediatric audiology, otoacoustic emissions, hearing science and disorders

PREVIOUS POSITIONS

Postdoctoral Fellow (2007 – 2009) Center for Hearing Research, Boys Town National Research Hospital, Omaha, NE. Mentor: Douglas H. Keefe, Ph.D.
Adjunct Medical Staff, Audiologist (2004 – 2006) Department of Otolaryngology, University of Washington Medical Center, Seattle, WA
Graduate Research Assistant (2002 – 2006) Virginia Merrill Bloedel Hearing Research Center, University of Washington. Mentor and Dissertation Committee Member: M. Patrick Feeney, Ph.D.
Graduate Research Assistant (2000 – 2003) Department of Speech and Hearing Sciences, University of Washington. Mentor and Dissertation Chair: Richard C. Folsom, Ph.D.
Clinical Audiologist, Clinical Fellowship Year (1998 – 2000) Utah Valley Regional Medical Center, Provo, UT
Graduate Research Assistant (1997 – 1999) Department of Audiology and Speech-Language Pathology, Brigham Young University. Mentor/Thesis Chair: David L. McPherson, Ph.D.

PUBLICATIONS: PEER REVIEWED JOURNALS

- Keefe, D.H., Feeney, M.P., Hunter, L.L., Fitzpatrick, D.F., & Sanford, C.A. (2018). Pressurized Transient Otoacoustic Emissions Measured Using Click and Chirp Stimuli. *Journal of the Acoustical Society of America*, *143*(1), 399-417.
- Sanford, C.A., & Brockett, J.E. (2014). Characteristics of Wideband Acoustic Immittance in Ears with Middle Ear Dysfunction. *Journal of the American Academy of Audiology*, *25*, 425-440.
- Feeney, M.P., Sanford, C.A., & Putterman, D.B. (2014). Effects of Ear-Canal Static Pressure on Puretone Thresholds and Wideband Acoustic Immittance. *Journal of the American Academy of Audiology*, *25*, 462-470.
- Sanford, C.A., Hunter, L.L., Feeney, M.P., & Nakajima, H.H. (2013). Wideband Acoustic Immittance: Tympanometric Measures. *Ear and Hearing* *34*(S1), 65-71.
- Schairer, K., Feeney, M.P., & Sanford, C.A. (2013). Acoustic Reflex Measurement. *Ear and Hearing* *34*(S1), 43-47.
- Hunter, L.L., Prieve, B.A., Kei, J. & Sanford, C.A. (2013). Pediatric Applications of Wideband Acoustic Immittance Measures. *Ear and Hearing*, *34*(S1), 36-42.
- Kei, J., Sanford, C.A., Prieve, B.A., & Hunter, L.L. (2013). Wideband acoustic immittance measures: Developmental characteristics (0 -12 months). *Ear and Hearing*, *34*(S1), 17-26.
- Sanford, C.A., Schooling, T. & Frymark, T. (2012). Determining the presence or absence of middle-ear disorders: An evidence-based systematic review on the diagnostic accuracy of selected assessment instruments. *American Journal of Audiology*, *21*, 251-268.
- Keefe, D.H., Sanford, C.A., Ellison, J.C., Fitzpatrick, D.F., & Gorga, M.P. (2012). Wideband aural acoustic absorbance predicts conductive hearing loss in children. *International Journal of Audiology*, *51*, 880-891; PMC3693460.
- Ellison, J.C., Keefe, D.H., Fitzpatrick, D.F., Gorga, M.P., Cohn, E.S., & Sanford, C.A. (2012). Wideband acoustic transfer functions predict middle-ear effusion. *Laryngoscope*, *122*, 887-894; PMC3432925.
- Keefe, D.H., Fitzpatrick, D.F., Liu, Y., Sanford, C.A. & Gorga, M.P. (2010). Wideband acoustic reflex test in a test battery to predict middle-ear dysfunction. *Hearing Research*, *263*, 52-65; PMC3694582.
- Sanford, C.A., Keefe, D.H., Liu, Y., Fitzpatrick, D.F., McCreery, R.W., Lewis, D.E. & Gorga, M.P. (2009). Sound conduction effects on DPOAE screening outcomes in newborn infants: Test performance of wideband acoustic transfer functions and 1-kHz tympanometry. *Ear and Hearing*, *30*(6), 635-652; PMC3519360.
- Liu, Y., Sanford, C.A., Ellison, J.C., Fitzpatrick, D.F., Gorga, M.P., & Keefe, D.H. (2008). Wideband absorbance tympanometry using pressure sweeps: System development and results on adults with normal hearing. *Journal of the Acoustical Society of America*, *124*(6), 3708-3719; PMC2737248.
- Sanford, C.A. & Feeney, M.P. (2008). Effects of maturation on tympanometric wideband acoustic transfer functions in human infants. *Journal of the Acoustical Society of America*, *124*(4), 2106-2122; PMC2600624.

- Feeney, M.P. & Sanford, C.A. (2005). Detection of the acoustic stapedius reflex in infants using wideband energy reflectance and admittance. *Journal of the American Academy of Audiology*, 16(5), 278-290.
- Feeney, M.P. & Sanford, C.A. (2004). Age effects in the human middle ear: wideband acoustical measures. *Journal of the Acoustical Society of America*, 116(6), 3546-3558.
- Feeney, M.P., Keefe, D.H. & Sanford, C.A. (2004). Wideband reflectance measures of the ipsilateral acoustic stapedius reflex threshold. *Ear and Hearing*, 25(5), 421-430.

PUBLICATIONS: BOOK CHAPTERS

- Schow, R.L., Nerbonne, M.A., & Sanford, C.A. (2018). Overview of Audiologic Rehabilitation. In R.L. Schow & M.A. Nerbonne (Eds.), *Introduction to Audiologic Rehabilitation* (pp. 3-34; 7th Edition). Boston: Pearson, Inc.
- Sanford, C.A. & Feeney, M.P. (2018). Middle-ear measurements in infants and children. In J.R. Madell & C. Flexer (Eds.), *Pediatric Audiology: Diagnosis, Technology, and Management* (pp. 121-132; 3rd Edition). New York: Thieme Medical Publishers, Inc.
- Hunter, L.L. & Sanford, C.A. (2014). Tympanometry and wideband acoustic immittance. In Katz, J., Hood, L.J., Chasin, M., Tillery, K.L., English, K. & Katz, I. (Eds.), *Handbook of Clinical Audiology* (pp. 137-163; 7th Edition). Baltimore, MD: Lippincott, Williams & Wilkins, Inc.
- Feeney, M.P. & Sanford, C.A. (2014). Middle-ear measurements in infants and children. In J.R. Madell & C. Flexer (Eds.), *Pediatric Audiology: Diagnosis, Technology, and Management* (pp.121-132; 2nd Edition). New York: Thieme Medical Publishers, Inc.
- Feeney, M.P. & Sanford, C.A. (2012). Application of wideband acoustic transfer functions to the assessment of the infant ear. In J. Kei and F. Zhao (Eds.), *Assessing Middle Ear Function in Infants Ear* (pp.131-161). San Diego, CA: Plural Publishing, Inc.
- Sanford, C.A. & Feeney, M.P. (2011). Infant evaluation: Under 6 months. In J.R. Madell & C. Flexer (Eds.), *Pediatric Audiology Casebook* (pp.88-91). New York: Thieme Medical Publishers, Inc.
- Feeney, M.P. & Sanford, C.A. (2008). Middle-ear measurements in infants and children. In J.R. Madell & C. Flexer (Eds.), *Pediatric Audiology: Diagnosis, Technology, and Management* (pp.115-122). New York: Thieme Medical Publishers, Inc.

PUBLICATIONS: NON-PEER REVIEWED MATERIAL

- Feeney, M.P. & Sanford, C.A. (2006, 2008). Contributing author: *Let's Talk Audiology: Otosclerosis. Contemporary Issues in Disorders and Treatment*. Patient education newsletter (item #0112816); American Speech Language Hearing Association.
- Sanford, C.A. (1999). *Suppression of transient evoked otoacoustic emissions in an ADHD population*. Thesis (M.S.), Department of Audiology and Speech-Language Pathology, Brigham Young University, Provo, UT. Harold B. Lee Library (call # RC 423.02.S263)

RESEARCH GRANTS/FELLOWSHIPS

- Jan 2019 – Dec 2019: Idaho State University Developing Collaborative Partnerships Grant Competition; Total Funds Requested \$50,000. Principal Investigator: Danny Xu with Co-Investigators: Mike Thomas, Jared Barrott & Chris Sanford. Project Title: *Drug-induced hearing loss mitigation through multi-faceted phenotypic screening and drug re-purposing* (Awarded)
- 2014 – 2018: NIH-NIDCD R03 Small Grant Program for Early Stage Investigators; Total Funds \$426,000. Co-Investigators: Gabriel Bargen & Jeff Brockett. Project Title: *Normative wideband acoustic immittance data: Toward clinical application* (Awarded)
- 2011 – 2013: Idaho State University, University Research Committee Grant; \$21,376 Co-Investigators: Chris Sanford & Jeff Brockett. Project Title: *Evaluation of test-retest reliability of high-frequency evoked otoacoustic emissions in children*. A collaborative project with Dr. Shawn Goodman at the University of Iowa (Awarded)
- 2011 – 2012: Idaho State University, Division of Health Sciences Enhancement Grant; \$10,000 Co-Investigators: Chris Sanford, Jeff Brockett & Pocatello ENT Physicians. Project Title: *Predicting Conductive Hearing Loss in Children: Test Performance of Wideband Acoustic Measurements* (Awarded)
- 2011 – 2012: Idaho State University, Division of Health Sciences Enhancement Grant; \$10,000 Co-Investigators: Jennifer Holst, Mary Whitaker & Chris Sanford. Project Title: *Emerging Evoked Potential Technology: Examining Relationships Between Behavioral Thresholds and Auditory Brainstem Responses Obtained in Quiet and High Levels of EMG Noise* (Awarded)
- 2010: American Speech-Language-Hearing Foundation Clinical Research Grant in Communication Disorders; \$49,161.95 Principal Investigator: Chris Sanford. Project Title: *Wideband Aural Acoustic Measurements in Children and Adults with Middle-Ear Disorders* (Not Funded)
- 2010 – 2011: Idaho State University, Faculty Research Committee Grant; \$5,000 Co-Investigators: Chris Sanford and Jeff Brockett. Project Title: *Wideband Aural Acoustic Measurements in Children and Adults with Middle-Ear Disorders* (Awarded)
- 2009: NIH-NIDCD Individual Postdoctoral Fellowship (F32 DC009939), Boys Town National Research Hospital. Project Title: *Using Wideband Energy Reflectance and OAEs to Assess Infant Middle-Ear Function*. Sponsors: Douglas H. Keefe, Ph.D. & Michael P. Gorga, Ph.D. (Awarded)
- 2007 – 2008: NIH-NIDCD Institutional Postdoctoral Fellowship (T32 DC000013), Boys Town National Research Hospital. Mentors: Douglas H. Keefe, Ph.D. and Michael P. Gorga, Ph.D. (Awarded)
- 2005 – 2007: NIH-NIDCD Individual Predoctoral Fellowship (F31 DC007296), University of Washington. Project Title: *Energy Reflectance Tympanometry in Infants*. Sponsors: M. Patrick Feeney, Ph.D. & Richard C. Folsom, Ph.D. (Awarded)
- 2000 – 2002: NIH-NIDCD Institutional Predoctoral Fellowship (T32 DC000033), University of Washington. Mentor: Richard C. Folsom, Ph.D. (Awarded)

Peer Mentoring of Grant/Research Activities

July 2020 – June 2021: Mentoring of Evan Papa in Physical Therapy, including assistance with his research proposal and fulfillment of his project. National Institutes of Health, Clinical and Translational Research Infrastructure Network (CTR-IN), Pilot Grant. Principal Investigator: Evan Papa. Title: *Influence of community-based group exercise on fall risk in Parkinson's disease.* Total funds requested: \$66,000 (Awarded)

SCIENTIFIC AND PROFESSIONAL PRESENTATIONS

National

- Rosen, B., AlMakadma, H. & Sanford, C.A. (2020). *An Absorbance Peak Template for Assessment of Newborn Conductive Pathways*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Sanford, C.A., Bargaen, G.A., Noblitt, J., Childers, A. & Brockett, J.E. (2018). *Wideband Acoustic Immittance and Age Effects of the Middle Ear*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Childers, A., Sanford, C.A., Bargaen, G.A., Hartman, A.R., Smith, H.A. & Brockett, J.E. (2017). *Wideband Acoustic Immittance: Age Effects in Children*. Poster presentation at the American Academy of Audiology Annual Meeting, April, Indianapolis IN
- Sanford, C.A., Bargaen, G.A., Diller, J.S, Smith, H.A., Hartman, A.R., & Brockett, J.E. (2016). *Wideband Acoustic Immittance: Age Effects in Adults*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Sanford, C.A., & Brockett, J.E. (2014). *Effects of Middle-Ear Disorders on Wideband Acoustic Immittance*. Poster presentation at the American Speech-Language-Hearing Annual Convention, November, Orlando FL
- Sanford, C.A., Goodman, S.S., Weber, S.E., Barua, S.C., & Brockett, J.E. (2013). *Evaluation of Test-Retest Variability of Extended-Frequency Otoacoustic Emissions in Children*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Sanford, C.A. (2012). *Wideband Absorbance: Tympanometric Measures*. Podium presentation at the Eriksholm Workshop on Wideband Absorbance of the Middle Ear, National Center for Rehabilitative Auditory Research, November, Portland OR
- Sanford, C.A. (2012). *Assessment of Middle-Ear Dysfunction Using Wideband Acoustic Tests*. Podium presentation at Boys Town National Research Hospital's 40th Anniversary Research Reunion, May, Omaha NE
- Sanford, C.A., Goodman, S.S., Weber, S.E., Barua, S.C., & Brockett, J.E. (2012). *Evaluation of Test-Retest Variability of Extended-Frequency Otoacoustic Emissions in Children (preliminary results)*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Ellison, J.C., Keefe, D.H., Fitzpatrick, D.F., Gorga, M.P., Cohn, E.S., & Sanford, C.A. (2011). *Wideband ear-canal acoustic transfer functions predict middle-ear effusion in young children*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ

- Peterson, S.N., Sanford, C.A., & Brockett, J.E. (2011). *Wideband Acoustic Transfer Functions in Individuals with Middle-Ear Disorders*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Sanford, C.A., Keefe, D.H., Ellison, J.C., Fitzpatrick, D.F. & Gorga, M.P. (2010). *Wideband Acoustic Transfer Functions Predict Conductive Hearing Loss in Children*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Sanford, C.A., Keefe, D.H., Fitzpatrick, D.F. & Gorga, M.P. (2009). *Estimating Forward and Reverse Ear-Canal and Middle-Ear Transmission in Infants*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Keefe, D.H., Fitzpatrick, D.F., Liu, Y., Sanford, C.A., & Gorga, M.P. (2009). *Wideband middle-ear muscle reflex test in a test battery to predict transient middle-ear dysfunction in neonates*. Poster presentation at the 32nd midwinter meeting of the Association for Research in Otolaryngology, February, Baltimore MD
- Sanford, C.A., Fitzpatrick, D.F., Keefe, D.H., Lewis, D.E., Liu, Y., McCreery, R.W., & Gorga, M.P. (2008). *Wideband reflectance predicts middle-ear status in infants in a newborn hearing screening setting*. Podium presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Liu, Y., Cohn, E., Ellison, J., Fitzpatrick, D., Gorga, M., Gortemaker, M., Sanford, C. A. & Keefe, D. (2008). *Wideband acoustic ear-canal reflectance, including wideband tympanometry and acoustic-reflex thresholds: System development and results on children with middle-ear fluid and adults*. Poster presentation at the 31st midwinter meeting of the Association for Research in Otolaryngology, February, Phoenix AZ
- Sanford, C.A. & Feeney, M.P. (2007). *1 kHz tympanometry in 4-, 12- and 24-week-old infants*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Sanford, C.A. & Feeney, M.P. (2007). *Energy reflectance and transmittance tympanometry in infants*. Poster presentation at the 30th midwinter meeting of the Association for Research in Otolaryngology, February, Denver CO
- Sanford, C.A. (2006). Invited Presentation: *The Write Stuff: Lessons for Success in Research Funding*. Podium presentation at the annual meeting of the American Speech Language Hearing Association, November, Miami FL
- Sanford, C.A. & Feeney, M.P. (2006). *Energy reflectance tympanometry in infants*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ
- Feeney, M.P. & Sanford, C.A. (2006). *The effect of ear canal pressure on pure-tone thresholds, acoustic conductance and acoustic transmittance*. Poster presentation at the 29th midwinter meeting of the Association for Research in Otolaryngology, February, Baltimore MD
- Feeney, M.P., Sanford, C.A., Day, J.E. & Kershner, B.D. (2005). *Wideband measurements of the acoustic stapedius reflex in human infants*. Poster presentation at the 28th midwinter meeting of the Association for Research in Otolaryngology, February, New Orleans LA

- Feeney, M.P., Sanford, C.A., & Kershner, B.D. (2004). *The aging middle ear: Measurements of the ipsilateral acoustic reflex using wideband energy reflectance*. Poster presentation at the 27th midwinter meeting of the Association for Research in Otolaryngology, February, Daytona Beach FL
- Feeney, M.P. & Sanford, C.A. (2003). *The aging middle ear: Wideband energy reflectance measurements*. Poster presentation at the 145th meeting of the Acoustical Society of America, April, Nashville TN
- Sanford, C.A. and Folsom, R.C. (2003). *Auditory brainstem response wave V amplitude and subjective loudness growth*. Poster presentation at the American Auditory Society, Scientific and Technology Meeting, March, Scottsdale AZ

State/Regional

- Sanford, C.A., Bargaen, G.A., Noblitt, J., Childers, A. & Brockett, J.E. (2018). *Wideband Acoustic Immittance and Age Effects of the Middle Ear*. Poster presentation at the Regional Audiology Student Research Symposium, April, Logan UT
- Smith, H.A., Bargaen, G.A. & Sanford, C.A. (2017). *The Effect of Tympanostomy Tubes on Behavioral Thresholds: A Comparison of Different Audiologic Earphones*. Poster presentation at the Regional Audiology Student Research Symposium, April, Pocatello ID
- Sanford, C.A. (2016). *Update on Wideband Acoustic Immittance*. Podium presentation at the Idaho Speech Language & Hearing Association Annual Convention, Boise, ID
- Sanford, C.A., Bargaen, G., Diller, J.S, Smith, H.A., Hartman, A.R., & Brockett, J.E. (2016). *Wideband Acoustic Immittance: Age Effects in Adults*. Poster presentation at the Idaho Speech Language & Hearing Association Annual Convention, Boise, ID
- Sanford, C.A., & Brockett, J.E. (2012). *Wideband Acoustic Transfer Functions in Individuals with Middle-Ear Disorders*. Poster presentation at the Idaho Speech Language & Hearing Association Annual Convention, October, Boise, ID
- Sanford, C.A. & Brockett, J.E. (2011). *Assessment of Middle-Ear Dysfunction Using Wideband Aural Acoustic Tests*. Poster presentation at the Intermountain Area Speech and Hearing Convention, Salt Lake City, UT
- Trapp, H., Holst, J., & Sanford, C.A. (2011). *Tone Burst ABR Normative Data in Infants with Normal Hearing*. Poster presentation at the Intermountain Area Speech and Hearing Convention, Salt Lake City, UT
- Sanford, C.A. (2011). *Assessing Middle-Ear Function in Infants: 1kHz Tympanometry and Beyond*. Invited oral presentation. Communication Sciences & Disorders 20th Anniversary Celebration Conference, April, Meridian ID
- Sanford, C.A. & Archer, K. L. (2010). *Wideband Middle-Ear Measurements: What Are These New Tests and Why Should I Be Interested?* Invited oral presentation. Nebraska Speech-Language-Hearing Association State Convention, September, Kearney NE
- Sanford, C.A. (2009). *Middle Ear Assessment in Infants: 1kHz Tympanometry and Beyond*. Invited oral presentation. Nebraska Speech-Language-Hearing Association State Convention, October, Kearney NE

Sanford, C.A. (2007). Otoreflectance assessment of middle-ear function. Boys Town National Research Hospital – University of Kansas Biennial Conference on Hearing Research, July, Kansas City MO

University

- Rosen, B., AlMakadma, H., & Sanford, C.A. (2020). *An Absorbance Peak Template For Assessment of Newborn Conductive Pathways*. Poster presentation at the 30th Annual Research Day, Division of Health Sciences, Idaho State University, Pocatello, ID
- Sanford, C.A., Bargen, G., Diller, J.S, Smith, H.A., Hartman, A.R., & Brockett, J.E. (2016). *Wideband Acoustic Immittance: Age Effects in Adults*. Poster presentation at the 26th Annual Research Day, Division of Health Sciences, Idaho State University, Pocatello, ID
- Sanford, C.A. (2015). *Evaluating Middle Ear Function: New and Evolving Methods*. Podium presentation at the Division of Health Sciences “Third Thursday” Lecture Series. Division of Health Sciences, Idaho State University, Pocatello, ID
- Sanford, C.A. (2015). *Wideband Acoustic Immittance: New Tools In Our Immittance Toolbox*. Podium presentation at the Communication Sciences & Disorders “Brown Bag” Lecture Series, Idaho State University, Pocatello, ID
- Vyvial, D., Wallber, J. & Sanford, C.A., (2014). *Hearing Assistance Technology and Applications for the Hearing Impaired*. Poster presentation at the 25th Annual Research Day, Division of Health Sciences, Idaho State University, Pocatello, ID
- Sanford, C.A., Goodman, S.S., Weber, S.E., Barua, S.C., & Brockett, J.E. (2013). *Evaluation of Test-Retest Variability of Extended-Frequency Otoacoustic Emissions in Children*. Poster presentation at the 24th Annual Research Day, Division of Health Sciences, Idaho State University, Pocatello, ID
- Sanford, C.A., Goodman, S.S., Weber, S.E., Barua, S.C., & Brockett, J.E. (2012). *Evaluation of Test-Retest Variability of Extended-Frequency Otoacoustic Emissions in Children (preliminary results)*. Poster presentation at the 23rd Annual Research Day, Division of Health Sciences, Idaho State University, Pocatello, ID
- Peterson, S.N., Sanford, C.A., & Brockett, J.E. (2011). *Wideband Acoustic Transfer Functions in Individuals with Middle-Ear Disorders*. Poster presentation at the 22nd Annual Research Day, Division of Health Sciences, Idaho State University, Pocatello, ID
- Sanford, C.A., Keefe, D.H., Ellison, J.C., Fitzpatrick, D.F. & Gorga, M.P. (2010). *Wideband Acoustic Transfer Functions Predict Conductive Hearing Loss in Children*. Poster presentation at the 21st Annual Research Day, Kasiska College of Health Professions, Idaho State University, Pocatello, ID

AWARDS AND SCHOLARSHIPS

2017: Recognition of Poster of Excellence in the electrophysiology category. Academy of Audiology Annual Convention. Authors: Austin Childers, Chris Sanford, Gabriel Bargen, Alyssa Hartman, Heather Smith & Jeff Brockett; Title: *Wideband Acoustic Immittance: Age Effects in Children*

2015 – 2016: National Institutes of Health (NIH) Pediatric Loan Repayment Program Award Recipient (L40 DC009197-04)

- 2014: Meritorious Poster Submission, American Speech-Language-Hearing Association Annual Convention (November). Authors: Chris Sanford & Jeff Brockett; Title: *Effects of Middle-Ear Disorders on Wideband Acoustic Immittance*. Distinction for proposals judged to show extraordinary, exceptional, and innovative work.
- 2014 – 2015: National Institutes of Health (NIH) Pediatric Loan Repayment Program Award Recipient (L40 DC009197-03)
- 2010 – 2012: National Institutes of Health (NIH) Pediatric Loan Repayment Program Award Recipient (L40 DC009197-02)
- 2009: Invited participant and travel award - 7th Annual Lessons for Success Research Conference: Developing the Emerging Scientist. American Speech-Language Hearing Association, Rockville MD
- 2007 – 2009: National Institutes of Health (NIH) Pediatric Loan Repayment Program Award Recipient (L40 DC009197-01)
- 2006: Invited participant and travel award - 4th Annual Lessons for Success Research Conference: Developing the Emerging Scientist. American Speech-Language Hearing Association, Rockville MD
- 2006: Mentored Graduate Student Research Poster Session Grant, National Institutes of Health and the American Auditory Society. Mentor: M. Patrick Feeney, Ph.D.
- 2003: Mentored Graduate Student Research Poster Session Grant, National Institutes of Health and the American Auditory Society. Mentor: Richard C. Folsom. Ph.D.
- 1997 – 1999: Minnie I. Hodapp Academic Graduate Student Scholarship, Department of Audiology and Speech-Language Pathology, Brigham Young University
- 1996 – 1997: Alumni Association Replenishment Grant, Brigham Young University

TEACHING/MENTORING EXPERIENCES

Idaho State University

2009 – Present

Courses

CSD 6600 *Principles of Research*

- Spring Semesters: 2011 – 2013; Fall Semesters 2014 – 2020

Interprofessional (included dental hygiene MS & audiology AuD students)
in Fall Semesters 2011- 2013; 2018 – 2020

CSD 6603 *Clinical Practicum in Audiology*

- Fall & Spring Semesters 2009 – 2018

CSD 6611 *Advanced Auditory Assessment*

- Fall Semesters 2009 – 2019

Team taught with audiology faculty 2018, 2019

CSD 6631 *Immittance and Special Tests*

- Spring Semesters 2010 – 2021

CSD 6645 *Auditory Anatomy & Physiology*

- Fall Semester 2017 (*co taught with Jeff Brockett*)

CSD 8810 *Capstone Project in Audiology*

- Spring Semesters 2010 – 2012, Fall Semesters 2013 – 2020

Doctor of Audiology Student Capstone Project Committees

Childers, A. (2018) Major Advisor; Smith, H. (2017) Committee Member; Hartman, A. (2017) Major Advisor; Schmidt, T. (2016) Committee Member; Powers, S. (2016) Committee Member; Durocher, C. (2015) Major Advisor; Jackson, L. (2015) Major Advisor; Funatake, S. (2015) Committee Member; Szczerba, A. (2015) Committee Member; Barua, S. (2014) Major Advisor; Holcomb, V. (2014) Committee Member
Hibbard, A. (2014) Committee Member; Vyvial, D. (2014) Committee Member
Weber, S. (2013) Major Advisor; Workman, C. (2012) Committee Member
Trapp-Carlson, H. (2011) Committee Member; Evenstad, J. (2011) Committee Member
Hartman, J. (2011) Committee Member; Jacky, W. (2011) Committee Member
Lifferth, S. (2011) Committee Member; Peterson, S. (2011) Major Advisor
Johnson, E. (2010) Committee Member; Smith, C. (2010) Committee Member

CLINICAL EXPERIENCES

- 2016 – January 2020: Clinical Audiologist (~3 hrs/wk) Pocatello ENT, Pocatello, ID. – Adult and pediatric audiologic assessment.
- 2009 – Spring 2018: Idaho State University Audiology Clinic Supervisor. – Supervise and mentor audiology graduate students performing clinical services for patients, including infants, children and adults
- 2008 – 2009: Newborn hearing screening (NHS) personnel, Bergan Mercy Medical Center, Omaha, NE. – Conducted NHS evaluations (OAE & ABR) in well-baby and NICU nurseries
- 2003 – 2006: Clinical Audiologist (part time), University of Washington Medical Center, Seattle, WA. – Adult audiologic assessment
- 2002 – 2005: Clinical Audiologist (part time), Washington Otology/Neuro-Otology, Seattle, WA. – Adult and pediatric audiologic assessment
- 1998 – 2000: Clinical Audiologist, Clinical Fellowship Year, Utah Valley Regional Medical Center, Provo, UT. – Adult and pediatric audiologic assessment and hearing aid fitting, adult vestibular assessment, and newborn hearing screening and follow up testing.

CLINICAL CERTIFICATION AND LICENSURE

- 2009 – present Idaho State Audiology Licensure
- 2002 – 2008: Washington State Audiology Licensure
- 1999 – 2009: Utah State Audiology Licensure
- 1999 – present: ASHA Certification of Clinical Competence in Audiology

CONTINUING EDUCATION

- October 4, 2019: ISHA Fall Symposium: Intergenerational Supervision, Mind the Gap. Presented by Michael Burns, PhD, CCC-SLP. Idaho State University.
- July 2019: RESPOND: Partnering for Campus Mental Health Training. One-day course providing an overview of symptoms associated with mental health problems, FERPA policies, and campus resources, with action plans to help faculty and staff respond effectively to student needs.

- April 2019: American Academy of Audiology Annual Convention. Columbus, OH
- March 2019: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- October 2018: Health Science Faculty and Staff Disability Training. Half day seminar regarding awareness and implementation of policies, procedures and support for students with disabilities.
- April 2018: Council of Academic Programs in & Disorders Annual Meeting. Austin, TX
- March 2018: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- February 2018: 28th Annual Mayo Clinic Audiology Conference, Webcast to Meridian, ID.
- September 2017 – June 2018: Idaho State University Leadership Development Program. A course designed to provide professional development to emerging and experienced leaders at Idaho State University. Participated in weekly classes with guest speakers, collaborative group exercises and service project.
- April 2017: American Academy of Audiology Annual Convention. Indianapolis, IN
- August – December 2016: Mentor for and participant in the University of Washington LEND (Leadership Education in Neurodevelopmental Disorders) Program. Mentor and participate with two ISU AuD graduate students in weekly distance learning sessions and activities aimed at preparing students, faculty, clinicians and researchers to lead the maternal and child health work force to better serve children with neurodevelopmental disabilities and other special health care needs.
- March 2017: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- March 2016: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- February 2016: Completion of Quality Matters Course: Independently Applying the Quality Matters Rubric, Idaho State University.
- November 2015: American Speech-Language-Hearing Association Annual Convention. Denver, CO
- March 2015: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- October 2014: Genetics and Hearing Loss: Online Conference, American Speech-Language-Hearing Association
- September 2014: Idaho Speech-Language-Hearing Association Annual Meeting. Idaho Falls, ID
- March 2014: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- October 2013: Grant Writing Workshop (1 day) presented by Grant Writers' Seminars and Workshops, sponsored by Idaho State University Office for Research and Economic Development, Pocatello, ID

- March 2013: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- October 2012: Idaho Speech-Language-Hearing Association Annual Meeting. Boise, ID.
- March 2012: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- September 2011: Pediatric Amplification Workshop: Didactic and hands on sessions related to diagnosis of hearing loss and providing amplification (including verification and validation) in pediatric populations. Utah State University, Logan, UT.
- April 2011: Translational Research Primer, *Bridging Research and Practice*. Talks and panel discussion presented by The Institute of Translational Health Sciences at the University of Washington. Idaho State University, Pocatello ID
- April 2011: CSED 20th Anniversary Conference: 20 Years in the Treasure Valley. Meridian, ID
- March 2011: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- October 2010: Pediatric Audiology Online Conference, American Speech-Language-Hearing Association
- October 2010: Idaho Speech-Language-Hearing Association Annual Meeting. Pocatello, ID
- March 2010: American Auditory Society Annual Scientific and Technology Meeting. Scottsdale, AZ
- April 2009 American Academy of Audiology Research Conference. Otoacoustic Emissions: Improving Practice Through Science. Dallas, TX

PROFESSIONAL SERVICE AND ACTIVITIES

Scholarly Journals

- Co-Section Editor and Editorial Board Member: *Ear and Hearing*, Audiology and Auditory Disorders Section (February 2013 – March 2020)
- Guest Editor: *Ear and Hearing* (August 2009; January 2021)
- Ad Hoc Reviewer: *Canadian J. of Speech-Language Pathology & Audiology* (2020 – Present)
- Ad Hoc Reviewer: *Otology & Neurotology* (2019 – Present)
- Ad Hoc Reviewer: *Hearing Research* (2016 – Present)
- Ad Hoc Reviewer: *International J. of Otolaryngology* (2015 – Present)
- Ad Hoc Reviewer: *J. of the Acoustical Society of America* (2014 – Present)
- Ad Hoc Reviewer: *J. of Speech, Language, and Hearing Research* (2014 – Present)
- Ad Hoc Reviewer: *J. of the American Academy of Audiology* (2013 – Present)
- Ad Hoc Reviewer: *American J. of Audiology* (2011 – Present)
- Ad Hoc Reviewer: *International J. of Audiology* (2010 – Present)
- Ad Hoc Reviewer: *Ear and Hearing* (2007 – Present)

Keynote Speaker and Trainer (invited)

- Workshop *Hearing Technologies Made Smarter: Raising the Bar in ABR, ASSR, OAE, WBT and Balance*. Speaker and hands on training in wideband tympanometry (WBT) provided for two day workshop for audiologists sponsored by Interacoustics. Las Vegas, NV (October 2019).

Grant Reviewer for Research Grants Council (RGC) of Hong Kong (Invited)

- Provided a scientific review of and recommendations for a major research grant proposal to the Research Grants Council (RGC) of Hong Kong. RGC is the principal public funding body in Hong Kong to support academic research (March 2019).

Grant Reviewer for Research Grants Council (RGC) of Hong Kong (Invited)

- Provided a scientific review of and recommendations for a major research grant proposal to the Research Grants Council (RGC) of Hong Kong. RGC is the principal public funding body in Hong Kong to support academic research (May 2018).

Regional Audiology Student Symposium (volunteer position)

- Lead coordinator for the 3rd Annual Audiology Student Symposium. A gathering of audiology students and faculty from Idaho State University, University of Utah and Utah State University for presentation of research projects and to facilitate interaction with fellow students, faculty and audiologists from the surrounding communities. Idaho State University, Pocatello. (April 2017)

Workshop Presentation for Rady Children's Hospital (invited)

- Workshop: *Wideband Acoustic Immittance: Old School, New Tools*. Presented a half-day didactic and hands-on workshop for Audiologists and Speech-Language Pathologists at Rady Children's Hospital, San Diego, CA. (April 2016)

ASHA Audiology Advisory Council Representative (elected position)

- State of Idaho Audiology representative for the American Speech-Language-Hearing Association's Advisory Council. Responsible for identifying, discussing and ranking issues of concern to ASHA members and advising the Board of Directors on issues for consideration as ASHA engages in strategic planning. (January 2015 – December 2017)

Lead Faculty for Salus University Summer Workshop (invited)

- Workshop: *Diagnosis and Management of External and Middle Ear Function*. Helped coordinate and presented a 2-day didactic and hands-on workshop with colleague, Jeff Brockett, EdD, for students in the International AuD Bridge Program at Salus University, Philadelphia, PA. (July 2014)

ASHA Special Interest Group Associate Coordinator (elected position)

- American Speech-Language-Hearing Association Special Interest Group, Hearing and Hearing Disorders: Research and Diagnostics (SIG6). Help promote continuing education opportunities, education and training of hearing scientists, provide input concerning education and training of clinical researchers and practitioners, and networking opportunities for affiliates. (January 2013 – December 2015)

ASHA Special Interest Group Editorial Review Board (volunteer position)

- American Speech-Language-Hearing Association Special Interest Group, Hearing and Hearing Disorders: Research and Diagnostics (SIG6). Review articles for semiannual publication of *Perspectives* publication. Also assist the SIG6 Coordinating Committee in identifying topic areas for *Perspectives* issues and continuing education programs. (May 2012 – December 2012)

Eriksholm Consensus Workshop (invited participant)

- Eriksholm Consensus Workshop on Wideband Absorbance of the Middle Ear, National Center for Rehabilitative Auditory Research, Portland OR. One of fourteen individuals from around the world invited to participate in the conference. The outcomes of this meeting were summarized in a consensus statement and 11 peer reviewed articles appearing in a special summer 2013 edition of *Ear and Hearing*. (November 2012)

ASHA Consultant (invited)

- American Speech-Language-Hearing Association's National Center for Evidence-based Practice (NCEP) in Communication Disorders. Topic: *Evaluating the accuracy of conventional tympanometry and wideband acoustic transfer functions in diagnosing middle-ear pathology*. Provided clinical expertise in the topic area in order to assist NCEP staff with evidenced based practice review. (July 2010 – August 2011)

State and National Conferences

Invited Reviewer. Conducted evaluations of research podium and student research forum abstract submissions for the American Academy of Audiology Annual Convention, (Fall 2020)

- Invited Reviewer. Conducted evaluations of research podium and student research forum abstract submissions for the American Academy of Audiology Annual Convention, Columbus OH (Fall 2018)
- Tinnitus and Vestibular Science Topic Committee Member for the 2018 American Speech-Language Hearing Association annual convention. Conducted peer-review evaluations of poster and podium session submissions, technical and scientific papers, and seminar submissions (Spring 2018)
- Invited Reviewer. Conducted evaluations of research poster abstracts for Audiology Now! American Academy of Audiology Annual Convention, San Antonio, TX (Fall 2014)
- Exhibit Hall Co-Chair: Idaho Speech-Language-Hearing Association Annual Convention (Fall 2010)
- Technology Session Moderator: American Auditory Society Scientific & Technical Meeting, Scottsdale AZ (Spring 2010)
- Program Committee Member: American Speech-Language-Hearing Association Convention, Invited Reviewer for Pediatric Diagnostics session submissions (Spring 2009)
- Program Committee Student Representative: Audiology Now! American Academy of Audiology Annual Convention, Minneapolis MN (Spring 2006)
- Pre-Convention Workshop Committee Member: American Academy of Audiology Annual Convention, Washington DC (Spring 2005)

University

- Graduate Faculty Representative (GFR) for graduate student's oral committees from a variety of programs across ISU campus (56 student committees, April 2011 – December 2020)
- Guest Lecture for Physician Assistant Program (2 hours); Audiology portion of the ENT module. Course Coordinators, Alan Mirly, MBA, PA-C and Dave Martin, MPAS, PA-C (Spring 2015 - 2021)
- Academic Faculty Promotion & Tenure Review Committee Member for Michael Foley, PhD, Department of Physical and Occupational Therapy (Fall 2018)
- Guest Lecture for CSD 4405 Neuroscience for Communication Disorders (1.25 hours); Auditory Pathways Module. Tori Scharp, PhD, course instructor. (Fall 2018)
- Tenure Track Third-Year Review Committee Member. Reviewed Master of Public Health faculty member's third-year review materials and helped the committee make recommendations for faculty's continued progress and improvement (Spring 2018)
- Chair, Audiology Program Clinical Faculty Search Committee: Idaho State University. Chaired the search committee for clinical faculty member in CSD Dept, Pocatello Campus. (Fall 2017 - Spring 2018)
- Chair, Academic Periodic Performance Review (PPR) Committee. Coordinated PPR review for fellow faculty member in the Department of Communication Sciences & Disorders (Fall 2017, Spring 2018)
- Guest Lecture and hands on demonstrations for ISU Medical Assisting Program (2 hours); Coordinated and worked with AuD graduate students to prepare and share interactive presentations on hearing screening for students in the Medical Assisting Program (Fall 2017, Fall 2018)
- Chair, Academic Faculty Promotion & Tenure Review Committee. Coordinated P&T reviews for 5 fellow faculty members in the Department of Communication Sciences & Disorders (Summer & Fall 2016)
- Department Faculty Search Committee Member: Idaho State University. Assisted with search for tenure track faculty member in CSD Dept, Pocatello Campus. (Spring 2010, Spring, 2016)
- Tenure Track Third-Year Review Committee Member. Reviewed Physical Therapy faculty member's third-year review materials and helped the committee make recommendations for faculty's continued progress and improvement (Spring 2016)
- University Research Council Member. Assist in gathering and disseminating research related information to the faculty and provide a faculty voice on matters pertaining to research, scholarship, and creative activity. The Council also provides oversight of subcommittees involved in the peer review and administration of internal grant awards funded by the Vice President for Research and makes recommendations for the Distinguished Researcher Award (Fall 2014 – Fall 2017)
- Tenure Track Third-Year Review Committee Member. Reviewed two fellow faculty member's third-year review materials and helped the committee make recommendations for faculty's continued progress and improvement (Fall 2013)
- Clinical Faculty Promotion/Review Committee Member. Served as the academic member for department member's clinical promotion/review committees (Fall 2011, 2012, 2013)

- Academic Faculty Promotion & Tenure Review Committee Member for Deanna Dye, PhD, Department of Physical and Occupational Therapy (Fall 2012)
- Junior Faculty Panel: Idaho State University New Faculty Orientation. Invited and served on question and answer panel of junior faculty members (Fall 2010, 2011)
- University Library Liaison, Department of Communication Sciences & Disorders, Idaho State University (Fall, 2010 – Present)
- Idaho State University Health Fairs. Supervision of students conducting hearing screenings (April 2010, 2011; March 2012, 2014, 2015, 2016, 2017, 2018)
- Performance Review Committee Member: Idaho State University. Served as a committee member for fellow department member's 5-year performance review (Spring 2010)
- University of Washington Student Research Laboratory Committee Co-Chair: Obtained and implemented a successful internal university grant (\$130,000) for student centered research equipment and lab space (2000 – 2002)

Community

- Fort Hall Pre-School Hearing Screenings. Supervision of students conducting hearing screenings. Fall 2015, 2016, 2017
- Gate City Elementary Science Day: Coordinated and worked with AuD graduate students to prepare and share interactive presentations on hearing to 1st through 5th grade students. November 5, 2015
- Cleft Palate Clinic, Blackfoot ID: Conduct hearing screenings for infants, children and adolescents being seen by a group of interdisciplinary health professionals
November 2009; May 2010
- Pocatello Head Start Hearing Screenings: Conducted and supervised graduate students with hearing screenings for children being seen by a group of interdisciplinary health professionals
September 2013 – 2017
- Special Olympics-Healthy Athletes/Healthy Hearing Program Volunteer: Conducted and supervised students who conducted hearing screenings during the following games:
 - Idaho State Summer Games: 2010
 - Idaho State Winter Games: 2010, 2015
 - Nebraska State Summer Games: 2007, 2008 & 2009
 - Washington State Summer Games: 2004 & 2006

PROFESSIONAL MEMBERSHIPS

2010-present: Idaho Speech-Language & Hearing Association
 2005-present: American Academy of Audiology
 2005-2011: Association for Research in Otolaryngology
 2002-present: American Auditory Society
 2000-2020: Acoustical Society of America
 2000-present: American Speech-Language-Hearing Association